To: Albright, David[Albright.David@epa.gov]

Cc: Robin, George[Robin.George@epa.gov]; Mark Nelson[mnelson@horsleywitten.com];

Geraldine Camilli[gcamilli@horsleywitten.com]

From: Jim Walker

Sent: Mon 1/13/2014 5:17:22 PM

Subject: Fw: Anterra Deep Injection Wells and CA Permanent Fracking Regulations/Standards

DOGGR response to USEPA report.pdf

Hi David.

This is the other email from Robert Nast that I referred to in my earlier email.

Best Regards, Jim

From: Robert Nast

Sent: Sunday, January 12, 2014 6:57 PM

To: Andrew Grinberg; Dr. Tom Williams; Bill Allayaud

Cc: <u>John Brooks</u>; <u>John Zaragoza</u>; <u>bill.gallaher@ventura.org</u>; <u>Katharine Moore</u>; Unfrack California; KK Holland; Caryl Alfaro; jameswalker5@msn.com; Lupe

Anguiano; Bruce Hesson; bryan.macdonald@ci.oxnard.ca.us;

hillary.blackerby@asm.ca.gov; Cheri Carlson; datkins@venturacountydemocrates.com

; Lorraine Walter; stan.hakes@ventura.org; Jack Peveler

Subject: Anterra Deep Injection Wells and CA Permanent Fracking

Regulations/Standards

Dear Tom, Bill, Andrew and others,

When making suggestions to DOGGR concerning permanent fracking regs, please join me and many others in reminding DOGGR and our Legislature [where required] to "first" revise "current regulations and procedures" concerning the safe operation of CA's Class II UIC Program wells based on USEPA's recommendations- please see DOGGR's website -search Horsley-Witten report (too big to attach). DOGGR and the Legislature should have already made [past tense- its been 2 years] necessary changes to its current regs and standards iaw recommendations made by the USEPA in 2011 [ref: FINAL REPORT California Class II Underground Injection Control Program Review Final Report [June 2011] Submitted by: James D. Walker, Horsley Witten Group, Inc. Under Contract to the USEPA Region 9]. DOGGR's response (less than satisfactory in my view) to the USEPA is contained in the attach.

Let's not default to lowest common denominator (in this case- lax state level regs and standards) and continue to marinalize CA's oil drilling oversight and regulation, of which effective regulation of Class II deep injection wells, is a crucial facet-especially when it comes to the inherently dangerous process known as fracking / acidizing. DOGGR needs to meet [if not exceed] federal standards. Remember when CA used to take pride in meeting and even exceeding federal environmental conservation requirements?

Why is this important? Priority/Rationale: The increasing disposal of fracking wastewater in CA's

deep disposal injection wells [like Anterra Energy's two deep disposal wells located in Oxnard] poses the most dangerous risk to CA's ground water availability/sustainability; not to mention our immediate health and safety. Based on empirical evidence from other fracking states less prone to earthquakes than CA [e.g. OK, W. Va. TX, OH, ARK, etc.], CA's current increased use of Class II UIC Program wells to disposition fracking wastewater is substantially increasing our chances of experiencing major (>M5.0). earthquakes in the immediate future. These major tremblers will in turn cause cascading physical integrity failures in existing production and injection wells; thus causing further and widespread aquifer degradation. This real threat is in addition to the industry reported/accepted physical integrity well failures data (5-7% infant mortality rate).

These unfortunate (perfect storm) events are all occurring at a time when CA is experiencing one of its worst droughts ever. How important is ground water to CA? Groundwater typically accounts for approx. 30% of statewide water use in an average year; it can be up to 40% in a drought year. Got water?

A quick recap of the USEPA recommended corrective actions was (1) Definitions. Change DOGGR's definitions of Underground Sources of Drinking Water (USDW) from <3000mg/L Total Dissolved Solids (TDS) to <10,000mg/L TDS, (2) Monitoring. Witness at least 25% of annual Standard Annulus Pressure Test (SAPTs) with a goal of 100%, which would include witnessing Mechanical Integrity Tests (MITs) on all wells on a five-year cycle, meet a 25% goal of witnessing Radio Active Tracer surveys [conducted by the operators on an annual basis for water disposal wells, every two years in waterflood wells, and every fiver years in steamflood wells, and (3) Testing. Require SAPT testing to the maximum allowable surface injection pressure or at a minimum pressure higher than 200 psi, and for more than 15 mins. in some cases. There are others-so please review the attached carefully. DOGGR/Legislators did add 43 engineers to the UIC Program-to their credit.

As you know,we are particularly concerned with two deep injection wells located in Oxnard CA [the author's hometown] operated by Anterra Energy, since these particular wells are (1) near a CA water resource well, (2) experiencing significant increases in fracking/acidizing wastewater injections [Long Beach, Bakersfield, et al are increasingly dumping their fracking trash in Oxnard] (3) located in productive strawberry fields with field workers in close proximity-a cause for worker safety and economic concerns, and last but not least (4) located just miles from San Gaetano Fault capable of a >M7.0 earthquake where connecting unmapped faults may reside.

We have related our concerns to our local legislators, city councilmembers, BOS, etc.. We are patiently awaiting a response from Sen HBJ with regards to proposed legislation requiring the complete recycling of fracking wastewater and/or trucking this hazwaste to a less earthquake prone state--- but not CA.

Best Regards, Bob Nast

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